VOLUME VII NUMBER 7

THE ELEMENTARY SCHOOL TEACHER

MARCH, 1907

PUBLIC INSTRUCTION IN FRANCE IN 1906

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Within a quarter of a century the impulse of the republican government has modified our system of education to such an extent that it can hardly be recognized. Forty or fifty years later than in the United States, France has witnessed in its elementary schools a movement of progress similar to that period of development which has been called, in your country, the "revival of the common school." But in higher education also these reforms have been both numerous and important. Great innovations, veritable creations, have changed the face of things.

It is out of the question to enumerate them all in a brief survey, but we shall at least indicate the essential features of what has been done, and in addition make a few prophecies for the future.

FRENCH UNIVERSITIES

Prior to 1896 France had no universities. This country, which, during the Middle Ages, had held first rank in the establishment of these organs of higher learning, had, for a hundred years, been deprived of them. There were but few isolated faculties, scattered and without cohesion—faculties of law, medicine, science, and letters. Being under the direction of the government, these faculties were deprived of all individual liberty. They frequently lacked the spirit of initiative and of research. They were poor and without proper equipment. They were

located in buildings which were old and inadequate. Their facilities were insufficient, particularly in the faculties of sciences, which had no laboratories and but little apparatus for research. Our most celebrated men of learning—Claude Bernard, for instance—have labored in garrets, in cellars, and in sheds.

On the other hand, the faculties of letters had no regular students, but only occasional listeners—amateurs who came for diversion rather than to derive benefit from lessons that were more oratorical than didactic. Instructors were few—but four or five in faculties that today number fifteen or twenty. There was not always an instructor to represent subjects of importance or sciences of the first order. And, finally, these faculties, which did not always deserve their title of institutions of higher learning, and the greater number of which were simply professional schools where public examinations were held, did not enjoy a life in common. They vegetated in the same city, separated from one another. As recently stated by M. Liard (who, as director of higher education, has contributed more than any other man to the foundation of new universities), even in Paris the members of the various faculties met but once a year at the "Messe du Saint Esprit."

Today everything is changed. The law of 1896 has established upon solid foundations the sixteen French universities. No doubt, all these are not of equal importance. A few of them comprise but two faculties: sciences and letters. But others are decidedly flourishing, and can now compete with foreign universities. The University of Paris takes the lead, and its pre-eminence is not contested. However, Lyons, Nancy, Lille, Bordeaux, Montpellier, Toulouse, and Grenoble also excel, and in some respects compete with, the University of Paris.

Perhaps the new law has not as yet been sufficiently liberal in its concessions to our universities. It may still be desired that they become more and more autonomous. But even now they govern their own destinies in a large measure, and are free in their movements. Under the presidency of the rector, who alone directly represents the government, a council of deans and professors—the latter elected by their colleagues—has

charge of their management. This council, itself under the control of the minister of public instruction, regulates the order of studies, establishes the budget of the university, introduces new courses, etc.

Universities in France have not had the good fortune to be endowed by such generous benefactors as the multimillionaires in the United States—a Leland Stanford or a Rockefeller. Such great fortunes are not common in France. However, the Universities of Paris, Lyons, Nancy, and Bordeaux have in the past been favored with gifts, some of them amounting to two or three hundred thousand francs. On the other hand, their wealth accrues from year to year through increasing attendance.

It is true that foreigners do not respond as readily as we could wish to the invitation of France. Americans in particular are too likely to pass France by on their way to German universities. Progress, however, is marked and constant. Official statistics show that the enrolment of foreign students, who in 1900 numbered 1,779, has been as follows: 1901, 1,841; 1902, 1,862; 1903, 2,045; 1904, 2,094; 1905, 2,360, of whom 774 were women. With its 31,000 men students and about 1,000 women students—foreigners not included—our higher education, while not as yet on a par with that of Germany, occupies a very honorable position in the European world. The University of Paris alone has enrolled more than one-third of the total number of men students, French and foreign, or 12,496 in 1905, and about one-half of the women students, or 935, the total number of these being 1,922.

SECONDARY EDUCATION

The reform of 1902 has greatly modified the system of secondary studies in colleges and *lycées* for boys. This reform had been prepared by the extensive investigations of a committee, of which M. Ribot, former minister of public instruction, was chairman, in which the reports of the greater number of competent professional men had been collected. It consisted in creating four different types of secondary education, each having its own distinct curriculum, but with the same time given to each—

i. e., seven years—and all of them leading to the baccalaureate. All of these four baccalaureates bear upon different subjects, but in rank they are equal and extend practically the same privileges to those who have obtained them.

At the close of his primary training, either in public schools or in elementary classes of colleges or *lycées* (for we have not, as yet, succeeded in effecting in the public or common schools the fusion of all the children of the nation), the French child enters, at the age of nine or ten, what is called the sixth class. There he may make his choice between two distinct courses of study, between two different paths: A, the classical course, characterized by the teaching of Latin; and B, the modern course, from which Latin is excluded and where the teaching of the sciences predominates. In the following classes—the fifth, fourth, and third, which, with the sixth, constitute what is called the first "cycle"—the same dual system is observed. Students go forth in two directions, which are parallel, with the exception that in the fourth class a new element of differentiation appears in Division A; the students who are in this division may, if they so desire, choose the study of Greek. Let us add at once that those who take advantage of this elective privilege are not numerous, and that Greek has not many adherents.

The subdivision into four sections does not occur before the second cycle, which comprises two years' study, the second and the first class. The first class is a substitute for that which in 1902 was called the class of rhetoric. Each of the four sections bears a sub-title: Section A=Latin–Greek; Section B=Latin–modern languages; Section C=Latin–sciences; Section D=sciences–modern languages.

Section A is nearly analogous to the old classical instruction. Students who in the fourth class, A, had chosen the study of Greek alone are admitted.

Section B comprises Latin given in the same proportion as in Section A, but is characterized by the larger proportion being given to the teaching of modern languages, German and English.

Section C retains the study of Latin and, of course, of

French and other literary instruction; but its marked distinction is the predominance of the sciences—it is the scientific section.

Finally, Section D of the second cycle, being the only one in which Latin is not taught, continues Section B of the first cycle. In this section sciences and modern languages predominate.

To the six years' study in the first and second cycle is added a last year of school-work in two parallel classes, one of which is called "philosophy," and the other "mathematics." Both are elective courses which may be taken optionally by students of the four sections A, B, C, D, provided they have passed successfully the first partial examination of one of the four baccalaureates.

To sum up, Greek is taught only in Section A; Latin, in Sections A, B, and C, and in the same proportions. As to the other subjects—sciences, French, and other modern languages, history, and geography—they appear in the programme of the four sections, but are given in various amounts in each section.

Such is the new programme of studies, as carried out during the last four years in our colleges and *lycées* for boys. In formulating this programme the elective system for many years past in vogue in the colleges of the United States has been suggestive. In organizing four series of instruction, while we formerly had but two, the classical and the modern courses, differences in the students' aptitude and plans for the future have been taken into consideration. Means by which to obtain the baccalaureate have been increased, and in order to excite the zeal of the students a greater variety of subjects has been offered.

But the reform of 1902 has also another aspect. It endeavors better to adapt secondary studies to the modern spirit and to the necessities of life at the present day. It tends obviously to limit the importance of the old classical studies, and to increase in the same proportion that of sciences and modern languages. In the latter particularly an important step forward has been made, not only because they are given broader attention in the curriculum, but also through the method now employed in teaching them. Formerly they were taught in the same manner as dead languages, by means of grammatical exercises through the explanation and

written translation of text, so that even the best students, although able to read and understand German and English, were seldom able to speak these languages. It would seem that the application of the "direct" method now adopted, and which consists in conversational exercises between teacher and pupil—the method which imparts the languages through their practical application —has already produced far better results.

It is interesting to note how students of the *lycées* of France are distributed in the four new sections. It is far from being an equal division. Section D, in which no Latin is taught is the best attended, as was to be expected. According to official reports, this section was chosen in 1905–6 by two-fifths of the students, or, in exact figures, 39.15 per cent.; while the least-attended section (11.41 per cent.) is Section A, in which are maintained the traditions of Graeco-Latin humanism, now obviously in decline. Section C, the scientific course, which is in greater favor, recruits a large number of students—26.42 per cent.; and finally Section B, Latin–modern languages, enrols an almost equal number, or 23.02 per cent. No doubt these figures will fluctuate. At first there was, very naturally, some hesitation, some uncertainty. Owing to lack of experience or to insufficient information, neither parents nor students seemed to be able to decide which section to favor or to select. The situation was similar to that at a new railway station, where several trains are headed in different directions, and where the ill-informed traveler is much at loss to know which road to take. I do not believe, however, that the slight fluctuation which may take place from year to year will seriously modify the general aspect of the programmes just outlined.

From the point of view of school-work, the reform of 1902 seems to give good results; and, notwithstanding the usual instability of our laws relating to secondary education, there is reason to believe that this reform will last, with the possible exception of a few modifications in the curriculum, which is overcrowded in certain respects. The only material modification which may be prophesied for the near future is the suppression, or rather the transformation, of the baccalaureate. In accordance with a bill

recently submitted to the chamber of Deputies by M. Briand, minister of public instruction, the baccalaureate, as it is conferred today, after examinations by the faculties of letters and sciences, would be supplanted by a certificate or diploma of secondary studies, which would be granted, one for each section, by the professors of *lycées* and colleges. It is true that the suppression of the baccalaureate has been so often demanded that it is permitted to doubt the success of M. Briand's proposition. However, let us call attention to the fact that a recent measure which admits the professors of *lycées* to the jury for the baccalaureate has, to a certain extent, prepared the way for the proposed reform.

SECONDARY EDUCATION FOR GIRLS

Coeducation, as you know, is not in favor with us, except in a few rural schools where mixed or "joint schools" still exist, owing to the fact that in the small communes resources are insufficient to warrant the luxury of two distinct schools, one for girls and the other for boys. As far as secondary instruction is concerned, the separation of the sexes still remains the absolute rule, and our *lycées* for women are institutions designed as exclusively for girls as are Vassar, Smith, Wellesley, and Bryn Mawr colleges in the United States.

It is only since 1880 that the French government has organized secondary instruction for girls. Prior to this date instruction was given only in private schools, generally in religious institutions, or convents. It is the law of 1880, named the Camille Sée Law after its promulgator, that has created the *lycées* and colleges for girls. Notwithstanding the opposition of the clerical party and the prejudices of certain families, these official establishments have continually prospered and developed as the result of the combined efforts of the government and the municipalities. Each year the attendance increases perceptibly, and each year similar institutions are opened in those cities which are not already possessing them.

At the present time we have forty-two *lycées* for women, aggregating approximately 12,500 students, and forty-two col-

leges, with 8,000 pupils. To these must be added eighty *cours secondaires* ("secondary courses"), which number also nearly 8,000 students. These so-called secondary courses, established by the municipalities from their own resources and with only slight aid from the government, are being gradually transformed into *lycées* and colleges.

In the secondary courses the course of study covers but three years, while in the *lycées* and colleges it extends over five. The curriculum offers about the same instruction as that of the *lycées* and colleges for boys, save that Latin is not taught and that special courses for women, such as sewing, domestic science, etc., are included. The diploma granted at the end is not the baccalaureate, but a special one called *diplome de fin d'études secondaires* ("diploma for completion of secondary studies").

PRIMARY EDUCATION

It is in her primary schools, even more than in her institutions for secondary or higher education, that republican France has exerted her influence. The primary school, which is a lay school, free and compulsory, and which was created by the laws of 1881–82 and 1886, constantly grows, and the generation to whose development it contributes is more and more animated by the modern, democratic spirit. The expenditures for primary instruction are yearly increased by the government, which then makes further appropriations for this purpose: 140 million francs in 1896, and more than 202 millions in 1906. To these sums granted by the government must be added those contributed by the departments and the communes, so that the total expenditures for primary instruction amount to about 270 million francs.

Included in primary instruction in France are the schools called "superior primary schools," equivalent to the American high schools, with the exception that Latin is excluded and that the students are somewhat younger, entering the schools at the age of twelve or thirteen, to leave it when fifteen or sixteen years old. At present there are 304 of these schools, 204 of which are for boys and 100 for girls. While the progress of our superior primary schools has not been so rapid as that of your high

schools, yet their development has been considerable. In the two years from 1903 to 1905, 43 new schools were opened, and from 1900 to 1905 the number of students increased from 28,000 to 50,000. The number is yet too small, and it is evident that out of the millions of children who leave the elementary primary schools at the age of eleven or twelve too few receive as yet a complementary education in regular courses of studies. We endeavor to remedy in part these conditions by increasing the number of courses called *post-scolaires*—such as courses for adults, popular lectures, etc.; but, whatever may be the success of these courses, we cannot expect to render to adults such services as the "schools of continuation" afford in Germany. Consideration has been given to making obligatory the courses for adults, which have hitherto been elective.

The French government is becoming more and more solicitous for the professional training of men and women teachers. A reform dating from 1904 has modified the régime of our normal schools in its decision that in the future the third year of study be set aside for the application of practical pedagogy and for the technical education of future teachers. There are today not less than 10,000 student-teachers of both sexes who are preparing themselves in our normal schools creditably to fulfil their future duties.

Retaining the traditional separation of the sexes in the primary schools as well as in the *lycées* and colleges and without adopting your favorite principle of coeducation, against which there exist in France all sorts of prejudices, the administration of public instruction seems disposed to favor mixed or joint schools at least in rural districts. A recent circular from the ministry of public instruction to the departmental authorities recommends that for the direction of these schools the preference be given to women, as if it were anticipated that, with us also, women teachers will to a large extent supersede men.

As a consequence of the recent laws for the suppression of religious orders, a number of private sectarian schools have been closed. The laity in education has not encountered in France so vigorous an opposition as in England, where the Education

Bill of 1906, although much more moderate than the French law, in that it imposed but slight restrictions upon religious, confessional, and denominational teaching, has been rejected in the House of Lords. Let us note, however, that the abolition of religious orders has not as yet been entirely effective. To all appearances the law is observed, but nevertheless it is evaded. In many cases the *Frères des Écoles chrétiennes,* who directed the larger number of the former confessional schools, have simply changed their costume. They have exchanged their ecclesiastical robe for the garb of the civilian, and, thus transformed in exterior appearance, although not modifying in the least their methods nor the character of their teaching, they continue to direct schools. Their number has decreased, however, their patronage has diminished, and the competition they exert against lay schools is less and less to be feared. With its 100,000 men and women teachers, France increasingly tends to bring together in the schools of the government nearly all the children of the nation, and also to establish the unity of national education.

PHYSICAL TRAINING—A QUESTION OF JUDICIOUS SUPPORT

A DISCUSSION OF PHYSICAL TRAINING IN ITS LARGER ASPECTS, AS AFFECTING SCHOOL YOUTH

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Modern physical training as an operative and effective factor in education is unthinkable without the setting of an enlightened background. Its pedagogical-aesthetical and anatomical-physiological aspects involve more than mere disciplinary values and health-promoting influences—they represent the highest that is conceivable in art, and what has been achieved in the science of the modern doctrine of the human body as well.

So regarded, physical training depends for its best unfolding and maintenance on the attitude of the school, and on the exponents of its ideals. The school is the generative power and principal factor in the advancement of the universal interests to be subserved. Inquiry, therefore, reflecting the true function of physical training in a scheme of education, is necessarily of paramount importance in outlining a policy calculated to obviate unnecessary and unprofitable experimentation.

In the past, as in the present, inquiries into the merits of the multiform instructional procedures evolved and extant have been influenced by the character of the conceptions held with regard to it. Preconceptions, without the data of comprehensive experiences, have, in instances without number, been the rule in its organization. Declarations of mere intentional purport have availed naught, the most liberal provisions not unfrequently proving antidotal.

Uncritical conclusions have resulted in an overemphasis of extremes—huge effort on the one hand, and on the other the prominence accorded the ameliorative or remedial features of gymnastic treatment.

Wherever physical training was suffered to exist without the enthusiasm born of intelligent methods, and minus the co-operating factors of judicious support, its design became manifest in some tumbleform of gymnastics or in an emphasis of certain work-phases, curtailing the general and adequate concept of its import. Intelligently directed and supported, it became an ever-growing source of interest by virtue of its manifold aims and resources.

Conservatism and enthusiasm have until within recent times characterized the two phases of its development.

The status of physical training in some of the leading institutions of the country, not at all final, is the outcome of much thoughtful inquiry and consistent experiment. Psycho-physical in its modern aspect, its inherent quickening influences have become active and virile only since its advocates and expositors have persisted in reconciling the claims advanced in its behalf with those of the other interests included in educational pursuits. It was from this view-point that its demonstrable claims and relations advanced and became an integral part of educational work.

The question of a rationale of methods in physical training, as applied to the secondary school, was recently discussed by a small coterie of experts in educational work. The general argumentative trend of the following summary presents the attitude taken.

In an analysis of the present status of physical training, it was asserted that the popular concept with regard to it was directed principally toward the athletic features of physical activities. The public, as a rule, was influenced by what was presented in the burden of literature bearing on huge athletics, principally through the daily press. Systematic organization of reportorial staffs in the interests of universities, colleges, schools, and athletic clubs, devoted to field and track events, and to innumerable competitive sports, furnished the papers with the material at once welcome and necessary to sustain the large so-called sporting interests involved. The views concerning a rationale of physical

education expressed in the public press were rare indeed in a comparison with this propaganda.

It was conceded that, however the aptitudes and predilections of normally constituted youth were directed and utilized for educational ends, the use and wont of the physical powers, *per se,* in the untrammeled exploitation and freedom of natural activities remained a matter of impulse and necessity, as distinct from the conventional routine of home and school occupations as is school formalism from the freedom of the playground. Instinctive desire prompted this use and wont, and the motive, if one could speak of a motive, was discerned in the cultivation of the sense of pleasurable experiences. Motive might represent a growing realization of what seemed practicable, advantageous, or helpful in the ordinary course of life-routine. The instinctive impulse, on the other hand, represented the alternative for the formalism of the school, sustaining the natural gift of cheerfulness and mirth. Both served the gradual preparation of the young aspirant for the larger responsibilities of a maturer life, and their encouragement was absolutely desirable—the question of direction of activities in the most profitable ways and in concord with prudence constituting the problem of the school. Therefore the most profitable school curriculum was the one based on a recognition of the facts evidenced in the daily life of school youth.

The charm of robust activity, characteristic of the display of skill and sagacity, witnessed in the individual and concerted action of field athletics during the recurring seasons of each year, had exerted a tremendous influence on the rank and file of our school youth. Outdoor recreation had received a mighty impulse. This was as it should be. Not only, however, were the seasonal in- and outdoor sports and games more popular than ever before, but a glance beyond the school gymnasium disclosed our young people disporting themselves in many interesting ways. Even our ten- and twelve-year-olds hurdle-jumped and danced to the shot-put in the most approved style. Our grammar-school boys and those beyond emulated the methods and practices of the seasoned athlete of the organized training quarters in the

forms typical of the most successful record-breakers. The principles underlying proficiency were largely left to solution in interesting illustrations on the corner lot, back yard, and open-air playground. This was not as it should be.

The popular idea of our physical renaissance had become as distinct in its outward form from what it represented a decade or so ago as the onetime calisthenic drill, so variously provided for in innumerable manuals, appeared in a contrast with the huge athletics of today. Mere pleasurable activity for the sake of health and ample recreation had been augmented in a remarkable way by the enthusiasm for contests and competitions, the legitimacy of which was unquestioned in the acclaim of the interested multitudes.

The recognition of this very large factor in the life of our school youth had, with all educators who have thought of the matter, become imperative. Wherever, therefore, it assumed the proportions characteristic of organized competitions, we met with a pronounced demand for a better organization of physical training.

It was only reasonable under the conditions to assume that the opinions of a large and interested body of teachers must ultimately crystallize toward some definite and practical plan regarding such organization, since it was evident from past experiences that an effective organization of physical training without this general co-operation must fall short of its import.

These and other demands, wherever thoughtful inquiry had prevailed, indicated, if anything at all, that students should undergo a preparation for whatever specialization in athletics they might wish to engage in, and that there should be the fullest recognition of the regularly constituted authorities of physical training in determining the order of procedures for such training.

It was recognized that certain knowledge affecting the welfare of youth, which should be common possession, was not sufficiently emphasized in the school curriculum. There was felt to be much erring in matters pertaining to wholesome education. The mere stimulus of competition was deplorable, because pernicious. From the standpoint of the teacher, it was not

enough to encourage the youth to exercise, and it was hazardous to encourage him to excel in athletics. With the superior boy this encouragement might, or it might not, lead to a proper regard for self. Many factors were constantly at play in strenuous, rather than in pleasurable, activities. The elements of time and energy in action were not merely estimated, but also generally considered—and unhappily for many boys—on the do-or-die side. It was not always a considerate estimate in the sense of prudence that characterized the sports of youth. Behind this demand for an appreciation of, and necessity for, the care of the body should stand the teacher. An intimate acquaintance with the structure of the human organism and its wonderful mechanism begets the appreciative faculty. This knowledge alone instils motives of the right sort into the aspiring student, and begets with the pedagogue concern for those he loves or should love well enough to guide aright in this very important and practical matter of the care of the body and its functions.

All educative pursuits involved certain fundamental considerations—the initial premise, the purpose and procedure, or, the principles, aims or problems, and methods. Principles as aims must always be based on pedagogy and aesthetics, the appreciation of the beautiful in nature and art. The emphasis of the aims under discussion is found principally in anatomical, physiological, and hygienic considerations.

To attain the "best estate," the inherent forces of the organism demand the cultivation of a robust physique through appropriate activities—healthy, strong, alert and enduring, beautiful in bearing and carriage—governed by a determining faculty, subserving these qualities. The question of conduct, of ethics in general, is an aim of education. That this executive faculty, the will, may become effective, in as far as the physical being can be considered, is the special aim of physical culture, implying physical education, training, gymnastics, and athletics, in the order of their importance. It must be regarded as nothing less than a perversion of aims to characterize physical training in its demonstrable scope and effects solely as a physical development, or as a purely hygienic procedure in the interest of health exclu-

sively, or as a recreation, or as athletics pure and simple. Health should always be the incidental outcome. Athletics should be governed in accord with the principle which demands the prerequisites, not of special but of prolonged all-sided preparation, entailing a due regard for the factors of skill, strength, and endurance, based on a carefully nurtured vitality.

The larger aspect of the question, as it affects school youth, must deal with the psycho-physical phases of a large and interesting subject, based on the data furnished in the investigations available in the related sciences. Indeed, mere physical training does not include the whole scope of work in question. It is the emphasis of a preparation that will enable youth to live the most useful life, which is needed in our day. The hygiene of living involves so much that a school course which does not impart a knowledge of some of the fundamental laws involving nervous activities, often jeopardized in athletics, cannot be regarded as fulfilling its purpose.

Can this be denied in the face of what we see and hear in the contrasts of pure athletic competition—the uncouth and rude behavior, the slang witticisms as they re-echo, not only from our park commons, but also from our school halls? Are these accompaniments in concord with the dignity of the school? Should not these clamorous outbursts make way for a richer enjoyment, the result of a rational procedure more in line with the aims of educative pursuits? Form of character is always the result of preceding causes. The concept of a strong character must be ideally, if not the immediate, the remote outcome of such training. If we can fill our athletic fields with the school youth at hand, through proper methods, should not the results outweigh by far the results now advocated through our competitive methods?

WHERE AND HOW PHONETIC SPELLING SHOULD BE USED AT ONCE

GEORGE D. BROOMELL

Although in full sympathy with the objects of the Simplified Spelling Board, for the purpose of this article the reader will please regard the writer as opposed to any change in our spelling. Say, if you will, that any attempt to simplify or modify our present form of words would be sacrilegious, and it shall be undisputed here. Let the sole question under discussion be: What is the easiest, the best, the most advantageous way to learn to read and to spell English as it is?

All will agree that this is not an easy task. Every letter in our alphabet (and every combination of two or more used as a letter) has a variety of sounds. Webster says: "This letter *a* is employed for eight variations of sound." "This letter *e* has seven variations of sound." "This letter *i* has five variations of sound." "This letter *o* has seven sounds." "This letter *u* has six variations of sound." Here are thirty-three sound variations for five letters. And digraphs and other combinations are equally prolific of variety. Notice *ea* in *great, heat, head, heart, heard.* The versatility of *ough* is shown in *though, through, cough, hiccough, hough, tough, plough.*

If, now, we look at the matter in the opposite direction, we find that the difficulties seem even greater. Webster might have said: "*A* is employed for eight variations of sound, and its own name-sound is represented in fifteen different ways. *O* as a letter has seven sounds, and as a sound is spelled in fourteen different ways."

The reason is plain, then, why learning to read and write English requires a great amount of labor. The student is threading his way through a maze of irregularities and uncertainties. Much time and effort are required for him to get the clew even approximately.

CHILDREN OVERTAXED

And most of those engaged in this work are children. What is our customary way of teaching children a difficult thing? Do we not set them at exercises that are plain and simple, but leading toward the goal desired? They walk on smooth ground before they are required to tramp over rocks and hills. They learn to make plain seams before trying to do fancy work. They make simple drawings before pictures are expected of them. They learn the elements of music before attempting to play anything difficult. In manual training the student makes many simple things before he attempts anything elaborate.

But not so our present method of teaching a child to read and spell. He is given short words, it is true, but the complexities of English spelling are in his first lessons. From the beginning the letter *o* has its seven sounds, and vocal *o* its many spellings; and so of all the letters and sounds. Hence the process of learning is very slow and exceedingly confusing.

THE REMEDY

What is the remedy? This: Teach children to read in phonetics before putting them at our standard English. It is easy to devise a system closely resembling ordinary print in which each letter or digraph shall stand for but one sound, and each sound always have the same representation. Let such a system be used as an inclined plane or a scaffolding whereby standard English may be reached. All first reading-books should be phonetic. To master the alphabet would require about as much time and effort on the part of each one of a class of forty as to learn to recognize and call by name all his classmates, previously strangers. And, the alphabet once learned, simple reading will almost come of itself. It is only vocalizing the symbols as they present themselves to the eye, like calling the names of classmates when they are seen. All is plain and natural, and can be accomplished without mental confusion.

CHANGING TO STANDARD ENGLISH

Children should have enough of such reading as described to become thoroughly familiar with it, and to be able to call readily

the most difficult words so spelled. Children six or seven years old would accomplish this in a few months. Then put into their hands primary books in standard English, explaining to them that, for reasons they will learn later, the spelling is irregular and the sounds of the letters uncertain. A large part of the words they will recognize readily by their resemblance to what is now familiar to them, and most of the rest they can get by study and attention to the context; and in a few months, with less help than children usually get from a teacher, they will read standard English as fluently as the phonetic. Several important consequences would attend this method of teaching. The first would be

A GREAT SAVING OF TIME

It is probable that children would learn to read standard English in one-half the time now required, thus leaving much more time than now for nature-study or any other of the numerous things that have been crowded into our school curriculums.

CHILDREN WOULD BE BETTER READERS

Because while learning they would not have to hesitate and puzzle over words on account of their irregular spelling, and hence could give their chief attention to expression. No one can read naturally and expressively unless he can apprehend the text without much effort. This the child cannot do as ordinarily taught; but, having formed the habit of reading expressively in simple text, he would carry it over into the more difficult.

THEY WOULD BE BETTER SPELLERS

Hon. William T. Harris said many years ago that children taught by the phonetic method made better spellers than those taught in the ordinary way. The reason for this is not far to seek. We learn to spell more by the eye than by the ear, and of what we see we remember what is striking. Our present spelling has a phonetic basis. Our words might be said to have an invisible phonetic line running through them, across which our current spelling zigzags. The child taught as indicated would mentally see this straight line, and the variations from it would

be striking to him, often amusing perhaps, and would find a lodgment in his memory from the attention given to them. Children now learn spelling mainly by rubbing against it until it becomes somewhat familiar, with little either to guide or to stimulate the memory.

THEY WOULD BE BETTER SCHOLARS GENERALLY

The ripe scholar may see a reason for the irregularities of our conventional spelling, but the child can see none. There is a logical faculty dormant in every child, which must be brought into activity before much progress can be made in acquiring knowledge of any sort. The constant variation in the value of any letter or combination is irrational, and hence learning to read in the usual way tends rather to repress the reasoning powers than to stimulate them. But by the phonetic method the dormant logical faculty is appealed to from the outset, and just in proportion to its development will be the progress of the child in arithmetic and other studies.

THE HISTORY OF ENGLISH WORDS

Children taught as indicated are more likely to become students of English words. Knowing what letters represent the sounds in a word, the presence of silent and seemingly useless ones would tend to excite curiosity as to why they are there, and to gratify this children would ask questions and early learn to consult dictionaries.

OTHER USES FOR PHONETIC BOOKS

Every day hundreds of foreigners come to our country who know no English. These find our language very difficult to acquire, and men often become voters before they can read or speak it. The language in print is so different from what they hear that the eye does not aid the ear, nor the ear the eye, in acquiring it. But by the use of these phonetic books they could get the correct pronunciation as rapidly as they could master the meaning of words. The printed and the spoken language would each help in the acquisition of the other, and foreigners, like

children, would soon learn standard English after getting it in its phonetic form.

THE CORRECTION OF NATIVE ILLITERACY

There are hundreds of thousands of adult native Americans who cannot read our language, many of whom speak it with a very imperfect enunciation. This is especially true of our southern states. Learning to read is so difficult that great numbers of the inhabitants are unequal to the task with such environment as they have. They are in great need of our inclined plane or scaffold by which to get up to our standard speech, both as spoken and printed. Give them these phonetic books, and many of them now illiterate would learn to read, and at the same time would perceive the inaccuracy of their speech and measurably correct their plantation dialect. Even if they got no higher than the scaffolding, it would be great gain, especially if some simple literature were printed in the same style, which could easily be done.

ENGLISH IN OUR FOREIGN POSSESSIONS

Such books would greatly facilitate the acquisition of English in our new possessions. It is desirable that all their inhabitants should learn as speedily as possible the language of the country to which they belong. Let them have it then in as simple a form as possible at first—that is, printed as it is spoken. Having learned to speak English, and to read and write it phonetically, no fear need be felt about their desiring to get it in its literary form.

ENGLISH IN ALL PARTS OF THE WORLD

It cannot be doubted that this scaffolding process of reaching standard English would be serviceable wherever throughout the world there may be occasion or desire to learn our language. Missionaries would use it in teaching those to whom they are endeavoring to carry the light of our religion and our civilization. It would aid and facilitate the acquisition of English everywhere, and thus hasten to make it a world-language.

MANUAL TRAINING IN THE GRADES

L. D. HARVEY

Manual training as a form of educational effort involves such a systematic training of the hand in construction work, through the use of tools and manipulation of material, as is adapted to the proper development of the motor activity of the hand, initiated, guided, and controlled by mental activities essential for the proper development of the mind.

It will be observed that by this statement the systematic training of the hand, in construction work, through the proper development of its motor activities, is made a definite end and aim of elementary training.

By the proper development of the motor activities of the hand I mean such a growth of power and control in the use of those activities through manual training as will enable the individual thus trained, and because of that training, more readily and more effectively to employ the hand in productive labor in the field of industrial effort. That such a result can be secured through this training is my belief, based upon the results of reasoning, of extended observation, and of experience in the administration of this line of work in the elementary schools.

To put it plainly, I find justification for that sort of manual training which aims at a systematic training of the hand in the increased power which it gives the individual to earn a livelihood through the use of his hands.

I am aware that this statement will invite criticism from some quarters; that it will be claimed that it is putting educational effort and aims on too low a basis. I would anticipate such criticism by saying that manual training is not all of education; that I do not claim for it everything that is needed for the proper development of those who attend our public schools; but I do claim that, if properly administered, it will increase the effectiveness of those trained as productive factors in society, and thus

increase their capacity to earn a living and to support those dependent upon them.

Our public-school system is supported by public taxation. The right of the state to levy taxes for the support of a public-school system is found in the fact that the state has the right to do whatever is essential for its perpetuity; and good citizenship is essential for the perpetuity of the state.

The duty which the public school owes to the state is to train American citizens. The fundamental basis of all good citizenship is a trained intelligence which will enable the individual to earn a living, to become a self-supporting member of society. The public school which ignores this fact, through the quality of the training given, has no right to an existence.

That the individual trained in the public schools subsequently shows his capacity to support himself may be because of the training there obtained, or in spite of it. It should be because of that training. The public school should be an active factor in the development of this capacity to earn a livelihood. With this given, all things else may be added; but without it, nothing is possible.

Some years ago the secretary of the International Committee of the Y. M. C. A., after careful study of statistics relating to the subject of educational preparation of the young men of the United States between the ages of sixteen and thirty-five, reported as follows: "Of 13,000,000 young men in the United States between these ages, only five in every one hundred have been specially prepared for their occupations by education received at some kind of a school." He also found that of every one hundred graduates of our grammar schools, only eight obtain their livelihood by means of the professions and commercial business, while the remaining ninety-two support themselves and their families by means of their hands. If these statistics are correct—and an examination into the conditions existing in any community will seem to substantiate them—it must be evident that the education given in the grades below the high school which does not make provision for the training of the hand, as well as of the brain, is failing to do for these children what they

have a right to demand shall be done for them, and what society and the state have the highest interest in demanding shall be done for them.

President Roosevelt has expressed, as the keynote of his administration, the sentiment: "a square deal for every man and every interest." If ninety-two out of every one hundred of the graduates of our grammar schools, and practically all of those who leave the elementary schools before completing the eighth grade, are to earn their living by their hands, I submit that the system of education which fails to give them during the most impressionable and formative period of their lives such a training of the hand as will fit them the earlier to become skilled in the different departments of manual labor in which they may engage, and thus to make their work more productive, is not giving "a square deal" to these future members of society, to society itself, nor to the state.

Thus far I have spoken of the systematic training of the hand as a definite end of manual training. But it is not the sole end or purpose. We must take note of the fact that the essential essence of all training is *doing;* of manual training, is *doing with the hands;* and that in systematic manual training, from start to finish, the motor activities of the hand must be set in operation, must be guided and controlled by the action of the mind; and the opening statement of this address calls for mental activities essential for the proper development of the mind—not all forms of mental activity, but forms which cannot be omitted, because of their necessity for proper mental unfolding.

Mental power comes through organized thinking. The mere memorizing of what others have said, or learning about what others have done, is not organized thinking, and gives little or no mental training. Organized thinking comes whenever the individual sets himself a definite task to do; and then determines and applies the ways and means necessary for the accomplishment of that task. This task may be the solution of a problem in arithmetic, or it may be the construction of a model from wood, iron, or other material, or the creation of a new and original design for such a model. I believe the latter forms to be of the higher

value, because they demand the use of tools and material. The tools cannot be used successfully upon the material to produce the desired result, without the exercise of the closest attention and of those forms of mental activity leading up to an act of the judgment. There can be no training of the hand which does not involve mental activity, and the mental activity thus involved is of a kind which furnishes just the training needed for the practical concerns of life. It is a mental activity out of which grows skill in doing; and skill in doing as a result of intelligent thinking should be one of the chief purposes of education.

It is the ambition of every boy, at a very early age, to become the owner of a pocket-knife. The reason for this is that the pocket-knife is a tool which furnishes for him the largest opportunities for the exercise of his inherent desire to do. No one thinks of denying him the pocket-knife because of the fear that its use will result in his becoming a mere whittler; but, on the contrary, the thoughtful parent will furnish it because of its value as an instrument in the training of the child's manual and mental powers.

Because in the manual-training school the child learns to use a plane or a saw, it does not follow that he is to be a carpenter. Because the girl learns to sew, it does not follow that she must be a seamstress; or because she learns the value of foods and how to prepare them, that she must, therefore, be a cook. The use of the plane and the saw will be of value to the boy, should he decide to become a carpenter. The training in sewing and cooking will be of value to the girl, should she decide to become a seamstress or a cook, or should be compelled to take the place of either seamstress or cook, even temporarily. But, in any case, the training thus afforded will be of the highest value in the development of the individual, because first, it demands concentration of attention, and thus develops that quality so essential to success in any field of human endeavor; second, it requires organized thinking in the adaptation of means to ends, a demand which will be constant through life; and, third, it demands an exercise of the will-power, resulting in doing for the realization of those ends, and through the doing there comes a clarification of the thinking.

It is not claimed that this sort of training, and the knowledge and the skill which it brings, constitute all that is necessary in the education of the child; but the claim is made, and well made, that any system of education which leaves out this kind of training omits one of the essential requisites in the proper education of the child.

I believe that anyone who will analyze closely the mental processes involved in the mastery of a lesson in grammar, in history, in geography, or in any of the branches taught in the public school, and then compare them with the mental processes involved in making a working drawing of a model in wood, and then from that drawing, by the use of tools, reproducing that model, will see that for all purposes of mental training the latter is of no less value, to say the least, than the former. It has the added value in that it has developed control of the hand, and skill in its use, which will be of value in other fields of work where manual skill is required.

Systematic training of the hand involves a definite purpose and adaptation of material, tools, and processes for the proper accomplishment of that purpose. These determinations are, in every case, the result of mental activity. The selection of the material, the choice of tools, and even the specific purpose, at any given stage of the work, may be the result of mental activity and choice on the part of the teacher; but the setting in operation of the motor activities employed in the use of tools or in the manipulation of material, and the guidance and control of those motor activities to the accomplishment of the given end, are the result of mental activity on the part of the pupil. Hence it follows that the systematic training of the hand for the proper development of its motor activities involves an equally systematic training of the mind which initiates, guides, and controls those activities. The statement already given calls for systematic training of the hand for a proper development of its motor activities. The term "proper" is used advisedly. Under the limitations it imposes, the specific ends determined, and the exercises necessary for the accomplishment of those ends, must be selected with reference to the state of development of motor activity and power of the

child being trained. It eliminates all classes of exercises beyond the strength of the pupil, at any given time, and also other classes of exercises requiring close work and too fine adjustments of motor activity at an early stage of the pupil's development. Since the training of the hand required by this statement involves mental initiative and control, it follows, that, when such a stage of skill has been developed as to cause the actions to become reflex, or when the stage is closely approached, they fall outside the demands here made, because then we have motor activity, but without the corresponding and correlated mental activity. Exercises thus continued may make for skill in a given narrow line of effort, but not for general development. The term "proper," as used in the statement, requires the discontinuance of any special motor activity when it has reached a stage where mental control is no longer an essential.

The *proper* development of motor activities implies an order of development which must be taken into consideration, and which must determine and control the character of the exercises which involve the training. The requirement that the motor activities involved in the manual training shall be initiated, guided, and controlled by mental activites essential for the development of the mind, makes it necessary that these exercises shall be selected with reference to the demands which they make upon the mind. It follows, therefore, that the mental capabilities of the pupil, at any stage in the process of training, must be considered. Work must be given of sufficient variety in the demand which it makes, for calling into play the varied forms of mental activity and in their proper order.

If this statement of the function of manual training in the public schools is accepted, it would seem to follow that there should be a definite course of training organized in the light of definite knowledge as to the motor and mental capabilities of pupils at different stages in their development, and that it should be systematic in its unfolding. It must grow out of careful study and scientific knowledge of what is necessary for the proper motor development of the child. It must not be left in its development to the sport and play of the child's impulses or temporary interests.

The problem is to present such a line of training as the child needs, and to interest him in something worth while, rather than to find some new thing which may appeal to each new and fleeting interest. Training involves the shaping and directing of interests, and especially is this true in the training of the child whose interests are as varied as his impulses.

The exercise of the hand in manual occupations outside the school is not systematic; it is accidental, sporadic, fragmentary; and because the work is unrelated, unorganized, it is not of the highest value for hand-training, and the mental activity is not of a kind to give the best results.

The schools which do not give manual training give an incomplete training. The sources of stimuli which they furnish are words mainly. The words presented for the pupil's consideration are symbols. The interpretation of the symbols depends upon the character and extent of the apperception mass in the pupil's mind. It may be entirely adequate, or it may be partially or completely inadequate, in which case the mental product is imperfect, inadequate; the *impression* is faulty in that it is incorrect, vague, incomplete. The *expression* of the results of this consideration of words is again chiefly through the medium of words.

The teacher under the present system of school organization, and with existing ideals of what is demanded of the pupil, too often is unable to test whether the pupil's expression is a remembered form of words without meaning, or, when other words are used, whether they are correct symbols of the correct idea.

In manual training, the sources of mental stimuli are things chiefly, and words secondarily. The same thing is true in nature-study; but the former is of a higher form, because the mental stimulus leads directly to, and co-ordinates with motor activity, and results in an expression of thought in the completed products of the hand, guided and controlled by the mind. This expression of thought is in permanent objective form, and furnishes an opportunity for comparison and correction of inaccuracies, which the fleeting word does not.

Book-study deals with words, and the character of the mental

activity aroused is uncertain. Nature-study deals with objects of nature, their forms, structure, sources, and uses. Manual training deals with material things, their form, sources, and uses, and, in addition thereto, demands physical and mental activity in changing the raw material to the finished product; and this is exactly what the individual will have to do who earns his living with his hands.

We may say that education demands, on the intellectual side, the development, control, and training for effective use of the varied activities of the mind, through the action of stimuli of the right kind, properly applied at the right time.

The work of the teacher, then, in the development, control, and training of the intellectual powers of the child, is in selecting the stimulus proper in kind and time, and, through right methods of applying it, securing the kind and amount of mental activity, properly directed, required to meet the needs of the pupil at a given time for given ends.

It will be apparent that in the field now under consideration —the intellectual side of education—the nature of the mind determines what is essential in the educational process, and this without reference to environment. It will also be evident that the nature of the mind does not determine the choice of material available as to the source of stimuli for various forms of mental activity or control.

Sources of mental stimuli available in the work of the public schools are words and material things. In the actual affairs of life the great majority of human beings are engaged in productive activities of one form or another. These productive activities demand a knowledge of material things, and knowledge of and skill in the processes necessary for the transformation of the raw materials of nature into forms fitted to satisfy human wants.

To do the work with the greatest effectiveness, it is evident that there must be specific training for it. Such training is not afforded through the activities evoked by the mental stimulus of words alone.

The activities evoked by the stimulus of material things may be roughly separated into two classes:

1. Those which begin with observation, and, passing on through a consideration of their forms, sources, and uses, terminate in definite judgment, but which require no constructive effort involving processes resulting in change of form.

Nature-study affords an illustration of this type of mental activity. It has its place in a rational scheme of elementary education because it furnishes a necessary stimulus not supplied through the medium of words.

2. The second class of activities resulting from things as a source of mental stimulus is that shown in constructive effort through motor activities, controlled by the mind and directed to a change of form of the material things under consideration.

Since this is the class of activities which must employ the great mass of mankind, and since systematic training is essential for effectiveness in this line of effort, and since systematic training is not given outside the school during the school age, and because it can be most effectively given during that period of the child's life, it follows that provision should be made for giving it in the elementary schools.

Manual training under the implications of the introductory statement of this address furnishes this kind of training, and rounds out and completes the necessary forms of activity for the development of the child during the elementary-school age.

Let us consider briefly the part which constructive effort plays in the work of the world.

The magnificent cathedral, with its splendid proportions, adorned with paintings, mosaics, and statuary, embodies the highest creation of the mind of the architect and the artist. The splendid structure in its completed form existed in the mind of the architect as a mental product before it assumed material form. The breathing marbles and the speaking canvasses which adorn its walls existed in the mind of the sculptor and painter as products of the constructive imagination while the marble was yet in the unhewn block and the paints unmixed. Before these creations of mind could stand forth in embodied form to minister to the spiritual needs and aesthetic tastes of all, the materials of which its component parts are formed must be selected, assembled,

and wrought upon by the cunning hand of the builder, the sculptor, and the painter in concrete constructive effort.

We may perhaps rightfully claim that the highest form of mental activity here involved is shown in the conception of the architect and artist, which preceded its objective realization; but we must not forget the debt they owe to the cunning work of the hand. Art, whether in architecture, painting, or sculpture, is an evolution. The builder's interpretation and embodiment of the constructive imagination of the early architect into an objective reality gave to that architect and others in concrete form that which had else remained a figment of the imagination. It now stands in form for study, for a determination of its defects and its points of excellence, of its adaptation or lack of adaptation to the purposes it was designed to serve. As a result of this study of the adaptation of means to ends, the imagination constructs a better mental product, which the builder again fixes in permanent form through the work of the hands. This process is continued, the work of architect and builder, each necessary for the other, each gaining by the other's work, until new types and higher forms of structure both in utility and in beauty are realized.

In the same way we might trace the development of art in painting and sculpture. The idea of the artist must take form through the work of the hand, and each creation of mental and motor activity, whether in statuary or painting, becomes a lesson and an inspiration for further effort.

Design, whether for decorative purposes, or in the production of new forms and combinations of materials adapted to the uses of man, follows the same line of development.

The modern printing-press is one of the most marvelous products of human ingenuity, but in its highest type today it is an evolution from the first crude press employing movable type, through the combined work of mind and hand. Each new type in the evolutionary process has come through a new conception of the mind, the outcome of a study of the defects and excellencies of an earlier type, and put into concrete form by the trained hand of the workman.

The more thoroughly the workman has been trained to con-

ceive the end for which he works, and at each step to adapt wisely and skilfully his efforts to the accomplishment of that end, the more likely will he be to see the necessity for and possibility of improvement.

The more skilful the inventor is as a workman, the fewer the errors in his designs and in the complete product.

The course in manual training in the grades designed to meet the demands for training here set forth should have a content of its own, wrought out and determined by the capacities and needs of the individuals to be trained. The materials and tools to be used, the particular forms of constructive work and their order, and the processes employed in the construction, should be selected and determined with respect to their adaptation in furnishing the kind of training required.

Manual training should be given, not as the fag end of other subjects in the course, and not chiefly for the purpose of illustrating or enlarging the work in those other subjects. The question as to how far the exercises of manual training may be utilized to supplement other school work — geography, history, arithmetic, etc.— is of far less importance than the question as to how far these exercises are adapted to meet the demands for necessary mental and motor activity, essential for the development of the child and not otherwise provided.

It is not my intention to claim that the work in manual training should not be in any way related to the other work of the school. It furnishes opportunity for work of high value in connection with other subjects; and such opportunities of relating one line of work with another to the betterment of both should certainly be seized.

Enough crimes have already been committed in the educational world under the name of correlation, without still further extending the list in attempting to correlate every form of motor training with some phase of the textbook of the schoolroom.

Correlation in educational work should be natural and not forced. Indeed, it cannot be forced; and much of what goes under the name of correlation would better be called a conglomeration of disjointed and unrelated fragments of knowledge, with

a resulting habit of mind of little value in effective and concentrated effort.

A course of study in manual training extending throughout the grades, and planned as above set forth, would furnish many opportunities for extending knowledge of materials and processes in industrial organization and administration lying outside the main line of training which the work is designed to offer. The extent to which these fields of knowledge may be explored must be determined by their value as matters of knowledge, their relation to other subject-matter of the course of study, and to the character of mental activity involved in their mastery. The exercises may frequently develop an interest in past or present industrial processes, the knowledge of which may be of value to the child.

I believe the children being trained today are far more concerned with the industrial processes of today than they are with the industrial processes of primitive peoples, and I cannot bring myself to the belief that nature has made so great a mistake as to bring children into the world at any given stage of the development of civilization, lacking the capacity to enter into that civilization without going through all the preliminary processes and steps through which it has been evolved.

I am not undertaking to argue the question as to whether the child in his unfolding must live over again in his development the development of the race, and must begin where the race began; but I do undertake to express my belief that, if this be true, he is at the time he enters the public school advanced far enough in this process of development so that some systematic effort may be undertaken for his training through the utilization of his immediate environment, and that it is unnecessary to attempt the difficult task of reconstructing the environment of primitive peoples which finds no proper place in the environment of today.

It is true that the industrial development of today presents complexities too great for the child of the public school; and yet I believe there is in it sufficient that is simple and elementary, and which leads directly and naturally to the more complex, to fur-

nish ample scope and material for the activities of the pupil's mind and hand; and that the consideration of these simpler phases of present environment furnishes a better basis for the understanding and appreciation of environment as a whole than would a class of exercises growing out of a dealing with the supposed environment of a people remote in time and low in the scale of development.

I believe that in our effort to make the work in manual training serve as a point of departure in the accumulation of knowledge of that which is remote we have overlooked some opportunities which it affords, subsidiary to the main line of training, but which are of the highest value. I shall call attention to one instance of this kind which has been very generally ignored (so far as my observation goes) in the field of manual training. I refer to the opportunities it offers for exercises of the highest order in developing the use of language. In the completed products of the constructive exercises involved in manual training, and in the processes employed, we have materials which may be utilized for language-training in the two forms of description and exposition unexcelled by any other material employed in the public schools.

The child who is trained in accurately describing one of these completed products of his own hand, or who is trained in giving an accurate exposition of the steps in order, and processes employed in the construction of that object, has secured a power in the use of exact and definite language which he receives nowhere else in the public-school course; every such exercise in the use of language requires such a training of the observation, and a clarification and organization of his knowledge, as are demanded by almost no other exercise in any phase of the public-school work.

One of the greatest weaknesses of the pupils in the public schools today is in lack of power in definite, concise, accurate statement. Too often this lack of power is due to the fact that pupils are asked to talk when they have nothing to say, to write essays on subjects of which they know nothing except as they acquire the knowledge from the words of the book.

The constructive work demanded by the manual-training course requires close observation and adaptation of means to ends,

an examination of effort and its results with relation to its success in realizing the desired end, a determination of what is lacking, further effort guided and directed by the increased knowledge of what is demanded, and again further comparison and study, followed by further renewed efforts. All this requires clear thinking. The work of the pupil's own hands is then a subject about which he knows something definite, and definite knowledge is the essential for definite statement. Here we have the raw material out of which accurate language in certain important forms naturally follows.

For the workman in the shop and elsewhere, the ability to state accurately and concisely what he is to do, or what he has done, or what another is to do, is an ability which has commercial value; and it is also an ability which has other value than can be measured in terms of dollars for the individual. Clear thinking furnishes the right conditions for clear statement. Clear statement begets clear thinking.

Too often in manual training we have left out all that is artistic. Motor activity may be developed and trained, and with it all the mental activity necessarily involved in such training when dealing with things beautiful as well as with things ugly in form. Artistic design is constructive work of the highest order. It is called for in the requirements for manual training set forth in the very first sentence on this address. But manual training is not a mere annex to artistic work, nor is it to be employed solely as a medium through which to display the results of constructive artistic design. Each should supplement the other. They are closely related. They should go hand in hand. Design for the mere sake of design in art has no value. Its value lies in its use; and ample scope is afforded in the field of manual training for effective and valuable artistic training in design and its applications to things useful.

A question of vital importance in the introduction of manual training into the grades is: Where shall it be begun, and how long shall it be continued? If I have correctly described its function, the question is answered in that statement. It should be begun when the child enters the public school, and it should be continued during his stay there.

There are still other reasons than those I have named, why it should be begun in the lowest grades and continued throughout the course. We have been making the mistake in our public-school work of assuming that the child can be taken from the home, where its activities before entering school have been concerned chiefly with things, and that during the school period each day we may entirely change the form of his activities and invoke the activities which come from the use of books. We are asking for mental activity, whereas the demand of its physical nature is for physical activity. We are demanding physical quiet, when its whole nature rebels against it. We have been asking him to deal with the abstract, when he wants that for which he is fitted and which appeals to him. We give him pencil and paper, and occasionally paints and brush, and expect him to find in these materials ample scope for the demands of his physical being for motor activity.

He should have during these early years just such scope for motor activity and systematic training as a well-organized course in manual training will provide.

I have sometimes heard it said that the claim made for motor activity carries with it the implication that manual training will make too great demands upon the mental activities of the child, and furnish no relief from the supposed mental activity involved in the use of books; but we must remember that change and variety in the form of mental activity invoked by material in use in manual training, which serves as a stimulus for such activity, afford the relief needed; and we must not forget that it is an impossibility to secure effective mental activity on the part of pupils in the primary grades, while holding them exclusively to a study of books and recitation work during the six hours of the school day. Manual training, then, is needed, in the very lowest grades, to furnish a form of activity which the physical nature of the child demands, and to utilize that activity through systematic, organized work for the development of the child.

While perhaps this reason may not be urged with the same force in the higher grades, it cannot be ignored with propriety in any one of the elementary grades. Manual training should be

continued throughout the grades because a large number of pupils not only do not go beyond the completion of the work in the eighth grade, but drop out also before that time. All need the training, both motor and mental, which a systematic, well-organized course of constructive work gives when properly administered.

I shall not undertake now to discuss in detail, or even generally, the course of study in elementary manual training. This is not the place nor the time for such a consideration. But I do wish to say that, in my judgment, the large problem for those engaged in furthering the cause of manual training today is in the determination of the values of the different lines of work, material used, and processes employed in this field of educational effort; what motor activities are proper at a given stage in the child's development; what mental powers are valuable for the control of these activities; what materials, tools, and processes are best adapted to meet the needs of the child at the different stages of development.

Such an examination as this would result in material modification of the work done in almost any of our schools where manual training is in operation. We are as yet feeling our way. We shall make progress most rapidly when we throw aside sentimentalism, and consider the question of, not what showing we can make, but what can be done to meet the needs of pupils. We should stand ready to discard each and every pet form of work which cannot stand the test of such an examination.

The examination of the manual-training exhibits at the St. Louis Exposition showed some remarkable things. It showed work being done in the lowest grades in one system of schools, and exactly the same line of work in the highest grades in another system. It showed work too difficult for the grade in which it was undertaken in some schools, and not up to the capacity of pupils required to do the same work in the higher grades in other schools. It gave evidence in many cases that product was the thing in the mind of the school authorities rather than training. It showed that the relation of art to manual training was in most cases so remote as not to be discoverable.

All these conditions are what might naturally be expected. This entire field of work is comparatively new. But the time has come for deliberation, consideration, and examination, not only of the basis upon which it rests, of the ends which it is to serve, but also of definite plans of adapting means to ends. It is not the work of any one individual, nor of any short period of time. It must be undertaken faithfully, patiently, and systematically by all who are interested in this phase of educational work. Further, experiments must be tried; other failures will result; but out of failure will come new experience and better judgment.

I cannot close without considering briefly another phase of the subject, and that is: how to find a place for it in the course of study. We hear much of the overcrowded condition of the elementary course of study, and we hear perhaps as much more as to the meager results which come from the administration of this course of study. We are told that pupils from the public schools have no power in the use of language, are not able to use arithmetic for the practical purposes of life, know little of geography and less of history; and, in fact, that they are more noted for the things they have not learned than for those they have mastered. And many of those who make these complaints, doubtless with more or less of truth, argue that what is needed in the public schools is fewer rather than more subjects, and that manual training would only add to the burdens of teachers and pupils, and would detract from the quality and quantity of knowledge and kind of training to be derived from the study of the traditional subjects in the course of study.

The remarkable thing about these claims is that they are made just as frequently, and with just as much truth, where no work in manual training, or other of the so-called "fads," is found.

The trouble is, not that we have too many subjects, but that we attempt to teach too many things in these subjects which are not worth teaching, and are wasteful in time, method, and effort, with correspondingly poor results.

Those who argue against manual training forget that there is no other line of work in which the pupil can engage which calls forth mental activity of a higher order than manual training;

forget that this work can be introduced into the school and be used as a stimulus for mental activity, when books fail as such a stimulus, and when the time spent in the subjects studied is time not only wasted, but worse than wasted, because it results in the development of bad mental habits; they forget that this work gives physical activity, change of position, change of interest, change in the form of mental activity; and that the pupil goes from it to his other tasks refreshed instead of wearied, and that he is able in the remaining time to do more in the field of the common branches than he could have done had the effort been made to hold him to those lines of work continuously.

The mental power gained through this dealing with things, and in the direction and control of motor activities, is a mental power which manifests itself in greater capacity of the pupil for the mastery of his work and more rapid progress in that work. He sees in it practical utility. It holds him in school longer; and, if properly organized, it is pleasing to his parents from the standpoint of utility, if for no other reason. The influence upon the parents is to make them more cordial in the support of the public schools — and the development of such a sentiment in any community is one which should be encouraged, because the development of the public-school system depends finally upon the belief of the public in its efficiency.

SEVENTH-GRADE MANUAL TRAINING

V. M. RUSSELL
Director Manual Training, State Normal School, Platteville, Wis.

The central thought in planning the shop-work for the seventh grade this year was to get something around which as many as possible of the other subjects of study could be grouped naturally. The incubator and brooder were chosen because of the interest the pupils had in them; because of their close relation to the agriculture, geography, arithmetic, and composition then being studied; and because of the season—late winter, when the subject of chicken-raising suggests itself naturally.

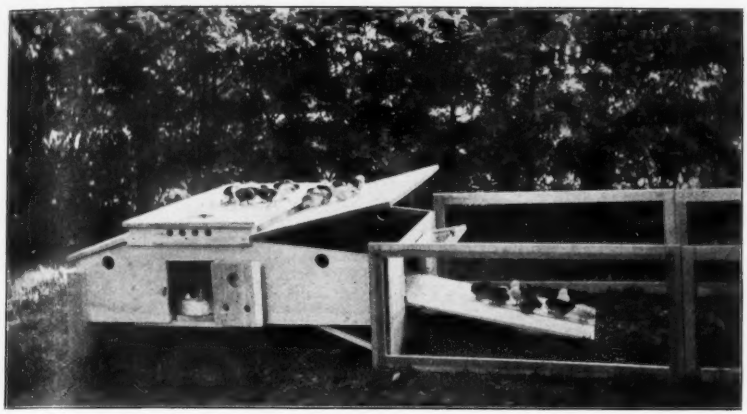
Various styles of incubators and brooders were examined and studied. The ones best adapted to good work in the shop and easy to manipulate were selected. Plans were drawn, and specifications for lumber in the rough were made. The various pieces were cut to dimensions and assembled.

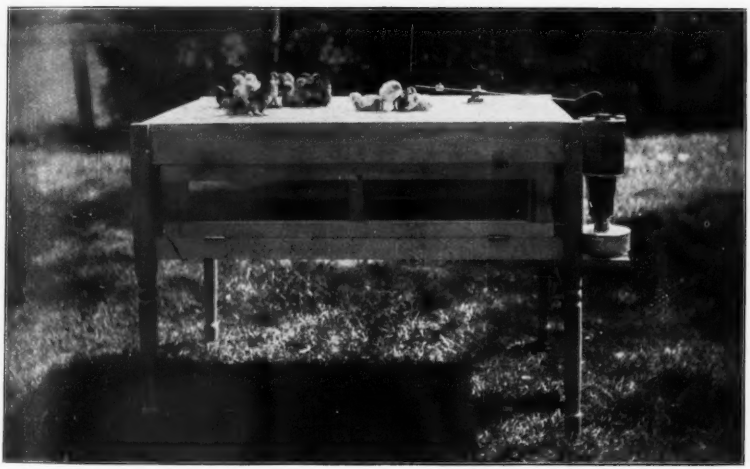
The work in agriculture, composition, etc., was done by practice-teachers under the direction of Miss Jessie Montgomery, principal of the grammar department.

The composition, following the outline used in the shop-work, was written by Archie Brugger, and chosen because it gives some idea of the knowledge the children gained about incubation and the raising of poultry.

Topics discussed in the shop:

1. Discussion of poultry-raising.
   - *a*) Natural and artificial incubation.
   - *b*) Profit.
   - *c*) Good work for boys and girls.
2. Incubator.
   - *a*) Selection of style; method of heating and ventilating; regulating temperature and moisture.
   - *b*) Drawing plans and making bills for materials.
   - *c*) Building: getting parts to dimensions, assembling and testing.





SPECIMENS OF WORK IN MANUAL TRAINING, SEVENTH GRADE

3. Operating incubator.
   a) Leveling apparatus.
   b) Quantity of water in tank; why tank cannot be filled.
   c) Lamp: filling; kind of oil; trimming; regulating.
   d) Regulating temperature: degree of heat; location of thermometer; dampers; adjusting regulator; time to run incubator before putting in the eggs.
   e) Care of eggs: turning; reasons for; method of; when to begin; how often; when to cease; time used.
   f) Moisture.
   g) Ventilation: at beginning of hatch; after forty-eight hours; during hatch; at time of hatch.
4. Selecting eggs.
   a) Defects: very large very small; poor shape; rough shell.
   b) Age: should be fresh.
   c) Care of, while in storage: temperature should be even and cool; should be turned once in twenty-four hours.
5. Brooder.
   a) Selection of style: hot-air and hot-water heating; ventilation; temperature; kinds of hover and runs.
   b) Drawing plans, and making bills for material.
   c) Building: getting parts to dimensions, assembling and testing.
6. Operating brooder.
   a) Filling tank; care of lamp.
   b) Temperature: during first four days; after first four days.
   c) Floor covering and food while in brooder.
   d) When to transfer chicks to coops.

AN EXPERIMENT IN INCUBATION

In the early part of our course in manual training the seventh grade decided to make an incubator and brooder, in connection with our course in agriculture. The incubator is heated with hot water and has a capacity for two hundred eggs. After it was completed, we spent a week in testing and regulating the heating apparatus. We found that it would keep regularly the required temperature of 103 to 104 degrees. We purchased seven

dozen eggs—two dozen Plymouth Rock, two dozen Black Minorca, and three dozen Brahma eggs.

Before we put the eggs into the incubator we tested them with an egg-tester to separate the bad from the good. Each egg was held before the flame of a lamp, and if it were dark it was bad. Then we placed the good eggs in the incubator on the thirteenth of March.

After the third day the eggs were turned and aired daily. About a week or ten days after they were placed in the incubator they were tested again to see if they were good for hatching.

When the chickens began to hatch on the third of April, we moved the incubator and brooder into the main room, because the shop was so small we did not have room in there. There were thirty-seven chickens hatched; seven of them died, but the remainder were healthy chicks. When they were about a day old, they were transferred to the brooder, which was heated by hot water and kept at a temperature of about 80 or 85 degrees. A hover which was made of felt was hung in the brooder, and the floor was covered with chaff for the chickens to scratch in.

The chickens were left in the brooder a day or so without being fed. Then we fed them baked corn which we crumbled up for them, and sometimes we gave them bread which we had soaked in water.

By this time the chicks became so noisy that they interfered with our studying, so we made a run for them in the basement. They were finally bought by a lady who wanted to have some early chickens.

As the incubator and brooder proved to be a success, we sold them to a friend who was interested in raising chickens.

ARCHIE BRUGGER.

TYPES OF SCHOOL FESTIVALS

FRANK A. MANNY
Ethical Culture School, New York City

As one travels north from Naples through Italy and Germany, he is impressed, on the one hand, by the change in conditions of life and, on the other, by the continuity of the festival spirit under the changed conditions. The life at the south is so strikingly open, simple, direct. Farther north much of this aspect is lost, while there is more evidence of elements that make for cleanliness and progress. Yet throughout there is a greater reality to the festival side of life, whether it be of church or state, than one finds in America, where we have broken with the older tradition and as yet have not found a new life.

This festival spirit is so fully in accord with various phases of social and industrial activities in the best American schools that we may look to them for help even more than we can expect it from other social institutions. Our hope for a deeper enjoyment of the meaning of activities on the part of adults lies in making use of the fact that some value is attached by the adults to this phase for children in the plastic period. If we work out what we can for the children, the grown-ups may find that their own period of growth, and consequent enjoyment, are longer than they had thought. We need careful studies of the significant motives of what has been done. Dr. Dopp's *The Place of Industries in Elementary Education* has many illuminating suggestions. Someone of equal energy and experience ought to devote himself to "The Place of the Festival in Education."

Even a hasty view of the kinds of festivals now in use would be helpful, showing, as it would, the lines of least resistance or of chief interest in elementary, secondary, and higher schools. I wish that the *Elementary School Teacher* or some other leading journal would open a department in which reports of current endeavors could be recorded and evaluated. The difficulty

in many schools is that a type of festival is learned or worked upon, and then, whatever is done, is made to conform to this type. Thus, in some places, the pageant is found to present less of subjective requirements than do other forms, and the entire supply of energy is spent upon certain spectacular effects. A study of the Venetian pageant and its influence upon art would help to prevent this one-sidedness which often results in nothing but display, or else leads either to the abandonment of the festival as an "extra," a "vanity," a "folly," or to a revolt in favor of plays with bare stage settings and no effort at costume effects, etc. I believe that both the pageant and the bare stage have their place, and each will be the better because of the use of the other.

In both these forms there is a high degree of participation and of product execution on the part of the performers. I have been giving some attention to the possibilities of more use of the process and of agents through which the performer works. This appears in the little pantomime plays in which objects cut out of paper or other material are used to make the shadows. The highest development we have of this method is seen in the marionette theater. After a performance in an Italian theater and an inspection of old models of the eighteenth century, now in a museum, I could better understand what these puppets meant to Goethe in his childhood. (I know of no book worth more to the student of the festival in aiding him to get the spirit of this phase of life than *Wilhelm Meister's Apprenticeship.*) There seems to be a utilizing in the puppets of one's tendencies to work through means, and a consequent objectification which is closely related to the socializing for which the school exists. This tendency is seen in normal boys and girls in playing with dolls, soldiers, paper animals, as well as with boats, engines, etc. "that will go." When there is added the element of improvisation, the value is even more evident, for by this means there is an avenue for that tendency to communicate oneself through a social situation so often seen in children and so often repressed. When there is this repression, the tendency feeds itself, in many cases, on day-dreams, poor love-stories. and cheap adventure tales. There is, of course, a danger in too great absorption in one's dolls or in

pantomime or puppets or machines, yet an advance is made upon mere subjective fancies.

Another interest met is that which oppressed finds its main feeding in the serial pictures of the Sunday newspaper—Buster Brown, Happy Hooligan, the Katzenjammers, *et al.* One may well regret the devotion of many children to these unworthies, yet the need they depend upon for their vogue is natural. They are live characters, and week after week in new situations appear these old friends. It is often said that following them does no harm because the children are not led to act upon the suggestions they offer. While we certainly do not wish to have the tricks of the newspaper pictures become the acts of our children, yet there is some danger in cultivating the attitude of appreciation and enjoyment without participation and consequent relating of reader or seer to the material.

The festival work in most schools is still unrelated to other work, and is dependent largely upon chance opportunities and influences. It offers one of the most valuable tools available for the reconstruction now sought for. It deserves (1) careful study as a factor in social life past and present; (2) recognition as a definite factor in the curriculum and not as an "extra;" (3) division of labor so that all members of a school have experience both as doers and observers; (4) development of a variety of types; (5) relation to larger wholes of action, thus taking account of social and ethical possibilities (compare 1, 2, and 3).

VOLUNTEER SUMMER WORK OF THE FRANCIS W. PARKER SCHOOL

RUTH L. BRIBACH
University of Chicago

An interesting phase of the activities of the Francis W. Parker School is the volunteer summer work. Some account of it is here given in the hope that it may prove suggestive to readers of the *Elementary School Teacher.*

Just before the school closes in June a type-written outline of suggestions for voluntary summer work and reading is given to the children of all grades who desire it. Paper of uniform size, and of quality suitable for composition and for sketches in pencil and water-color, also is furnished. The outline, while serving somewhat to direct the interest of the children, permits of great freedom, and the idea of the work has been taken hold of enthusiastically. When the school opens in the autumn, the contributions are collected, and all are bound together, just as they are, according to grade. The best ones are used as material for the morning exercises of the school.[1] A programme frequently consists of a single topic—a summer spent in the mountains, for example—treated of by children in different grades. The description of various places; the handling of the topic from many points of view; the display of collected illustrative matter—photographs, pencil-drawings, and water-color sketches—both instruct and entertain the assembled pupils, faculty, and visitors.

An examination of the records of voluntary summer work for the year 1904 reveals interests of various sorts. Many children wrote of local industries. Several sent in creditable botanical collections, one of which consisted of blue prints of specimens gathered by an enthusiastic little girl who spent her vacation in

[1] Described by Jennie Hall, "Morning Exercises in the Francis W. Parker School," *Elementary School Teacher,* February, 1906.

England. Others sent in lists of wild and tame animals observed in their neighborhood or at places visited. There were some pupils who kept a record of problems solved, and of exercises written in German or French, and a few handed in original stories. The year of the Louisiana Purchase Exposition, a number visited St. Louis, and kept a diary, well illustrated. All of the contributions breathed the spirit of voluntary work.

The following "Suggestions" were brought together by different instructors in the school and were edited as follows:

SUGGESTIONS FOR VOLUNTARY WORK DURING VACATION

FOUR REASONS FOR DOING WORK DURING VACATION

1. To make a souvenir to remind one of the places seen and things done in the summer.

2. To add material to the school museum.

3. To furnish the school with valuable descriptions of places and industries. Papers which are good enough for class reading will be printed. They will also furnish interesting material for the morning exercises throughout the year.

4. To have the pleasure of the work. If the work is not a pleasure, it had better not be done.

I. *Suggestions for souvenirs.*

Keep a diary.

Make drawings or paintings of interesting places or things.

Collect plants, or minerals of locality.

If you go to the exposition, collect souvenirs which are worth while. (Advertising souvenirs frequently are valuable.)

II. *Suggestions for collections for the school museum.*

Only things which are of real value in showing the animal or vegetable life of some region, or the life-history of some animal, or stones and minerals of some special interest, can be put in the museum.

To make these useful, the animals, especially the insects, must be mounted (best inside glass cases), and the plants must be pressed and mounted on cardboard.

Everything must be labeled with its name, the place where it is found, and the character of the place—mountain, valley, prairie, swamp, beach, etc.

III. *Some subjects on which the school would like papers or sets of paintings or drawings.*

1. An excursion.
   A description of a trip through beautiful or interesting scenery.
2. The topography of a region.
   What are the most conspicuous features of the region? Hills; mountains; valleys; ravines; lakes; rivers; swamps; marshes; prairies.
   Make a map showing the relative location of the different features.
   Describe one or two of these.
   What forces do you see at present building up and wearing down the region?
   What forces do you think may have worked there in the past?
3. Plants.
   Describe several trees and other plants.
   Use drawing and painting to show branching, the forms of the tops, and the shapes of the leaves.
   Tell in writing in what kind of place they grow, whether alone, or with others of the same kind, or of different kinds.
4. Animals.
   Keep a list of any wild animals you see.
   Pick out one wild or tame animal, watch it as closely as possible, and write an interesting account of it.
5. An industry.
   Watch the manufacture of some product or the growing or harvesting of some crop.
   Get as many pictures of the industry as you can, photographs or drawings.
   Secure samples of the material at various stages, when possible.

Write a description of the process.

6. The scene of a historic event.
   If you visit the scene of any important historic event, tell the story of the event, describing carefully the place where each part of it occurred.
7. The exposition.
   General description.
   The exhibit which I liked best.
   The music.
   The different races of people.

IV. *Suggestions upon music for children who go to the exposition.*

1. Third and fourth grades.
   a) Write description of musical instruments of various peoples, giving approximate measurements, and general character of the tone. For example, is it like a mandolin, a harp, a flute? Is it loud or soft, high or low?
   b) Write short descriptions of players and singers, including the manner of playing and singing, and the *occasion.* For example, is it for dancing? Does it accompany work or play, or any special kind of activity?
   c) Do they keep very good time? Can you count it? Is it beautiful music to you? Do they seem to like it?
   d) Make drawings or paintings of instruments and players.
2. Additional points for upper grades.
   a) What kind of time do they use most? Do they change the time in the middle of a piece?
   b) Does the music mean much to you? Is it martial, sentimental, childlike, fantastic, savage, delicate, happy, sad? Is it varied or monotonous?

The following were among the contributions handed in, the autumn of 1904:

FISHING

The way they fish in Charlevoix is this. First they set the nets in Lake Michigan. About every other day some tugs go

out loaded with nets, bring in the fish, and drop the nets that they brought out in place of the others. The fish are cleaned, sorted, and put in boxes on the tug so as not to waste any time. After they get back to the fishery, some of the fish they pack in ice, put in little cars, and ship. Some of them they put in the smoke-house to be smoked.

The smoke-house is made out of bricks, and in the bottom there is a hole for the fire. The walls and inside of the door are covered with tar. The door is made out of wood. They have a steel cover to put over the fire so the smoke could get only at the fish. The fish were hung on wooden rods, and they had sticks to hold the sides of the fish apart so the smoke could get at the fish. Over a hundred fish are smoked at a time.

The nets are washed in lime, and then hung on large wooden rods to dry so they would not rot. The bottom of the nets are weighted with lead, and the tops are floated with little pieces of wood, so the net will be in a perpendicular position. The fish swim into the net without knowing. The nets are made of fine string that looks as if it would break easily, but it is very strong. On the edge of the net there is a thicker and stronger cord, because it has to hold all of the fish.

LUCY DUNLAP SMITH, third grade

THE SAW MILL IN GLADSTONE, MICHIGAN

The lumber comes from across the bay and farther north than where we were. It comes in booms from 500 to 1,000 logs, and is towed by tugs. When it gets to the yards they untie it, and men with long poles with iron points on the end spear the logs and send them on a moving thing (made of iron with sharp points) that runs up to the second story of the mill, and keeps going around.

When the logs get to the top, a man with a shorter spear takes them off and puts the perfect or best logs on one side to make boards of, and the poor ones on the other side to be made into shingles. The good logs are pushed over to a sort of moving car with a big clamp on the side that catches up and holds the logs, then turns them over. There is a big saw at one

end, and as the car moves it saws the bark off first, which they burn in the furnace. Then they saw the boards. The boards are pushed on to the next lot of men, where each board is placed in position and the rough sides are taken off.

Then they pass on to a set of four saws. If the board was perfect, just enough would be sawed off to even the ends; if not, these saws were worked by foot levers, and the board could be cut either 8, 12, 16, or 20 feet. The poor sides that were cut off were thrown to one side and sawed in just the same way as the larger board, only smaller, and were made into laths—two laths cut at a time. They were bundled and carted away as fast as made. Then the most imperfect logs that were thrown aside as they came up the shift were sawed into shingle lengths. This is very dangerous as the men have to hold the short pieces of logs so close to the saw that Mr. M—— said that they never knew until after it was over when a finger was off. They made three grades of shingles—shingles 1st, 2nd, and 3rd. I watched them bundle the shingles, which the men did very fast. We also watched them sharpen the big saws, which was very interesting.

FERDINAND BUNTER, fourth grade

GERMAN SONGS AND RHYMES FOR CHILDREN

ANNA T. SCHERZ
University Elementary School

There is, perhaps, hardly a country that has such a wealth of children's songs and rhymes as Germany. A great many of the rhymes are from six to eight hundred years old, but children still love to say them. Very extensive works have been published which contains numerous songs and rhymes of childhood, as, for instance, *Des Knaben Wunderhorn,* by Achim v. Arnim and Brentano, or *Das deutsche Kinderbuch,* by Simrock.

If children begin to study German when young, they take great delight in these natural little verses of childhood, and, as I have found them of great help to me in teaching the language, I present a few of the best ones which I have collected.

WIEGENLIEDER

I

1

Schlaf' in guter Ruh',
Tu die Äuglein zu!
Höre, wie der Regen fällt,
Hör', wie Nachbars Hündchen bellt;
Hündchen hat den Mann gebissen,
Hat des Bettlers Kleid zerrissen;
Bettler läuft der Pforte zu.
Schlaf' in guter Ruh'!

2

Schlaf', mein süsses Kind!
Draussen weht der Wind;
Häschen, Häschen, spitzt das Ohr,
Sieht aus langem Gras hervor;
Jäger kommt im grünen Kleide,
Jagt das Häschen aus der Weide;
Häschen läuft geschwind, geschwind.
Schlaf', mein süsses Kind!

II

Schlaf', Kindlein schlaf'!
Der Vater hütet die Schaf;
Die Mutter schüttelt's Bäumelein,
Da fällt herab ein Träumelein.
Schlaf', Kindlein, schlaf'!

III

Eia, popeia, schlag's Küchelchen tot!
Legt mir keine Eier
Und frisst mir mein Brot.
Rupfen wir ihm dann
Die Federchen aus,
Machen dem Kindlein
Ein Bettlein daraus.

IV

Schlaf', Kindchen, schlaf'!
Vor der Tür steht ein Schaf,
Ein schwarzes und ein weisses;
Und wenn das Kind nicht schlafen will,
So kommt das schwarze und beisst es.

KLETTERBÜBLEIN

Steigt das Büblein auf den Baum,
O, so hoch man sieht es kaum!
Schlüpft—von Ast zu Aestchen,
Hüpft—zum Vogelnestchen.
Ui!—da lacht es.—
Hui!—da kracht es.—
Plumps, da liegt es drunten!

WENN DAS KIND VERDRIESSLICH IST

Sag mir, du Siebenschläferlein:
Wie träumt das Maienkäferlein?
Mum, mum!
Wie lacht das Maienkäferlein?
Hum, hum!

Wie singt das Maienkäferlein?
Sum, sum!
Wie zankt das Maienkäferlein?
Brum, brum!

EIN LIED

1

Der Besen, der Besen!
Was macht man damit?
Man kehrt damit die Stuben,
Man kehrt damit die Stuben,
Die Stuben, die Stuben.

2

Die Rute, die Rute!
Was macht man damit?
Man klopft damit die Buben.

3

Warum denn nicht die Mädchen?
'Ne Schand' wäre das,
Die folgen schon von selber.

EIN LIED

Spannenlanger Hansel,
Nudeldicke Dirn'.
Gehen wir in den Garten,
Schütteln wir die Birn'.
Schüttel' ich die grossen,
Schüttelst du die kleinen;
Wenn das Säcklein voll ist,
Gehen wir wieder heim.

REIME AUS DER NATUR

I

Drei Rosen im Garten,
Drei Tannen im Wald.
Im Sommer ist's lustig,
Im Winter ist's kalt.

II

Blümchen am Wege,
Blümchen am Stege,
Blümchen blüh,
Frühling ist hier.

III

Es regnet, es regnet,
Es regnet seinen Lauf,
Und wenn's genug geregnet hat,
Dann hört es wieder auf.

IV

Es schneit, es schneit,
Es weht ein kühler Wind,
Es fliegen weisse Vögelein
Auf's Käpplein jedem Kind.

EIN LIED

A, a, a, der Winter, der ist da.
Herbst und Sommer sind vergangen,
Winter der hat angefangen.
A, a, a, der Winter, der ist da.

E, e, e, nun giebt es Eis und Schnee.
Blumen blüh'n an Fensterscheiben,
Sind sonst nirgends aufzutreiben.
E, e, e, nun giebt es Eis und Schnee.

I, i, i, vergiss des Armen nie.
Hat oft nichts sich zuzudecken,
Wenn ihn Frost und Kälte schrecken.
I, i, i, vergiss des Armen nie.

O, o, o, wie sind die Kinder froh.
Wenn das Christkind tut was bringen,
Und "vom Himmel hoch" sie singen,
O, o, o, wie sind die Kinder froh.

U, u, u, ich weiss wohl, was ich tu'.
Christkind lieben, Christkind loben,
Mit den lieben Englein droben.
U, u, u, ich weiss wohl, was ich tu'.

TANZLIEDCHEN

I

Tanz, Mädchen, tanz!
Die Schuhe sind noch ganz,
Lass dich's nicht gereuen,
Der Schuster macht dir neue.
Tanz, Mädchen, tanz!

II

Wenn ich zum Tanzen geh',
Tut mir mein Fuss nicht weh;
Aber o weh, mein Fuss,
Wenn ich arbeiten muss.

BALLSPIEL

Anne-Marie
Fall auf die Knie!
Steh wieder auf,
Mach einen Lauf!
Wasche die Hände,
Trockne sie ab!
Steck' sie in die Seite,
Ringel—Ringel—Reite!

STECKENPFERDLIED

Hopp, hopp, hopp!
Pferdchen, lauf Galopp!
Über Stock und über Steine,
Aber brich dir nicht die Beine.
Hopp, hopp, hopp, hopp, hopp,
Pferdchen, lauf Galopp!

DIALOGE

I

Ihr Diener,
Was machen Ihre Hühner?
Legen sie brav Eier?
Sind sie denn auch teuer?
"Stück für Stück ein'n Dreier."

II

Guten Morgen, Herr Meier!
Was kosten Ihre Eier?
"Ein' Dreier."
Das ist zu teuer,
"Einen Pfennig."
Das ist zu wenig.

TIERVERSCHEN

I

Storch, Storch, Langbein,
Bring mir ein kleines Brüderlein!
Storch, Storch, bester,
Bring mir 'ne kleine Schwester!

II

Muh, muh, muh,
So spricht die Kuh.
Sie giebt uns Milch und Butter,
Wir geben ihr das Futter.
Muh, muh, muh, so spricht die Kuh.

III

Rab', Rab', gräme dich!
Rab', Rab', schäme dich!
Kannst dir keine Stiefel kaufen,
Musst im Schmutze barfuss laufen.
Du stolzierst im schwarzen Frack
Und bist doch ein Bettelsack.

IV

Sperling ist ein kleines Tier,
Hat ein kurzes Schwänzchen,
Sitzt vor Häuschens Kammertür,
Macht ein Reverenzchen.

V

Schneck' im Haus,
Komm heraus!
Kommen zwei mit Stecken,
Wollen dich erschrecken;
Kommen zwei mit Spiessen,
Wollen dich erschiessen.
Schneck' im Haus,
Komm heraus!

VI

Kuckucksknecht,
Sag' mir recht,
Wie lange soll ich leben?
Will dir einen Groschen geben!
Belüg mich nicht,
Betrüg' mich nicht,
Sonst bist du nicht der rechte,
Ich verklage dich beim Spechte,
Der kriegt dich dann beim Kragen,
Drum musst du die Wahrheit sagen,
Kuckuck, Kuckuck!

WETTSTREIT

1

Der Kuckuck und der Esel
Die hatten grossen Streit,
Wer wohl am besten sänge,
Zur schönen Maienzeit.

2

Der Kuckuck sprach: "Das kann ich!"
Und fing gleich an zu schrei 'n.
"Ich aber kann es besser!"
Fiel gleich der Esel ein.

3

Das klang so schön und lieblich,
So schön von fern und nah;
Sie sangen alle beide:
Kuckuck, Kuckuck, ia!

—H. v. FALLERSLEBEN

REIMRÄTSEL

I

Welches Tier meint's nimmer gut,
Wenn es noch so freundlich tut
Und nur schmeichelt mit der Tatze;
Rate nur, es ist die ———

II

Wer kann mir den Vogel nennen:
Er ist grösser als die Hennen
Und geht ihnen stets voran,
Kennst du ihn? Es ist der ———

III

Was sitzt am Kopf und kleidet gut?
Errate schnell, es ist der ———

IV

Wer ist der Mann, er nähet Kleider?
Liebes Kind, es ist der ———

V

Es kann sich drehen, aber nicht laufen,
Es steht gewöhnlich auf grünem Hügel,
Es ist kein Vogel und hat doch Flügel;
Mit welchem Namen willst du es taufen?

VI

Wer hat einen Kamm und kämmt sich nicht,
Wer hat einen Sporn und reitet nicht,
Wer hat Sicheln und schneidet nicht?

VII

Was Zähne hat und doch nicht beisst,
Und auch nicht kaut;
Wer weiss wie's heisst?

THE VIKING

Words and melody by children of the Fifth School Year, University Elementary School

King Har-old went a-cross the sea, To trade for sil-ver and gold; Three
ships to far-off Spain took he, With a hun-dred men right bold. One
night at sea a storm broke out, The thun-der roared and rang, The
hail to Har-old, glo-rious king, And hail to all his men, Long

Fine.
ships were driv - en all a - bout; The men but laughed and sang.
life and joy to them we sing, And vic - to - ries a - gain.
p
2. Out of the mist a drag-on came, It was a fier - y foe! The
p
swords and spears flashed like a flame, And hundreds "went be-low." All
f

Wilbur Samuel Jackman

Professor of the Teaching of Natural Science in the School of Education of the University of Chicago; and Principal of the University Elementary School

Born January 12, 1855
Died January 28, 1907

Editor of the
Elementary School Teacher
September, 1904–January, 1907

BOOK REVIEWS

Educational Manual Training. By WILLIAM C. A. HAMMEL, Director of Manual Training and Physics in the North Carolina State Normal and Industrial College. Richmond: B. F. Johnson Publishing Co. (No. 1, *Paper Folding,* pp. 45; No. 2, *Cardboard Construction,* pp. 48; No. 3, *Elementary Knife Work,* pp. 38; No. 4, *Advanced Knife Work,* pp. 45. Paper, illustrated.)

Mr. William C. A. Hammel has made a practical contribution to educational manual training in the above four paper-bound booklets. They contain drawings for a series of models in each material, together with explicit directions for carrying them out. The necessary equipments are simple, inexpensive, and permit the work to be done at the school-desk.

The purpose is to present an outline of work to begin in the third grade, leading finally to the wood-sloyd in the seventh, eighth, and ninth grades.

Some excellent models are presented, especially in the cardboard, but in some instances the drawings seem complicated in view of the age of the pupils for whom they are designed.

A. B.

BOOKS RECEIVED

A. S. BARNES & CO., NEW YORK

Simple Experiments in Physics. By JOHN F. WOODHULL and M. B. VAN ARSDALE. *Mechanics, Heat, Fluids.* Cloth. Pp. 142.

Sound, Light, Magnetism, and Electricity. Cloth. Pp. 120.

Hints and Helps. Arranged by CAROLINE S. GRIFFIN. Cloth. Pp. 179.

Mary Kingwood's School. By CORINNE JOHNSON. Introduction by W. A. BEER. Cloth. Pp. 119.

Little Talks on School Management. By RANDALL N. SAUNDERS. Cloth. Pp. 68.

Composition in Elementary Schools. By JOSEPH S. TAYLOR. Cloth. Pp. 207.

LITTLE, BROWN & CO., BOSTON

Men of Old Greece. By JENNIE HALL. Cloth. Eight full-page plates and forty-three illustrations. Pp. 263. List price, $0.60.

Boy Blue and His Friends. By ETTA AUSTIN BLAISDELL and MARY FRANCES BLAISDELL. Cloth. Illustrated. Pp. 165.

Merry Animal Tales. By MADGE A. BINGHAM. Cloth. Illustrated. Pp. 217.

The Wide Awake Primer. By CLARA MURRAY. Cloth. Illustrated in color. Pp. 111.

The Wide Awake First Reader. By CLARA MURRAY. Cloth. Illustrated in color. Pp. 128.